

REMARKS/ARGUMENTS

Favorable reconsideration of this application, in view of the present amendment and in light of the following discussions, is respectfully requested.

Claims 1 and 3-41 are currently pending in the application. Claim 2 has been canceled; claims 1, 3, 5-11, 13-20 have been amended; and claims 21-41 have been added herewith. The changes to the claims and the addition of claims 21-41 are supported by the originally filed specification and do not introduce any new matter.

In the outstanding Office Action, Claims 1, 2, 5, 11, 15 and 16 were objected to because of informalities; Claims 7, 14 and 20 were rejected under 35 U.S.C. § 112, first paragraph; Claims 2, 6, 7, 10-15, 19 and 20 were rejected under 35 U.S.C. § 112, second paragraph; Claim 3 was objected to as being a duplicate of Claim 2; Claims 1, 6, 9, 10 and 13 were provisionally rejected under obviousness-type double patenting over claims of co-pending Application Serial no. 09/995,614; Claims 1-7 and 9 were rejected under 35 U.S.C. § 102(b) as anticipated by the Hashimoto et al. (JP 10-146183) (for which a JPO computer translation was provided); Claim 1-3, 5-7, 16 and 19 were rejected under 35 U.S.C. § 102(b) as anticipated by Miyahara et al. (EP 1120646 A1); Claims 8, 17 and 18 were objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent form; and Claims 11, 12 and 15 would be allowable if rewritten to overcome the rejections under 35 U.S.C. § 112, second paragraph.

In response to the objection to claims 1, 2, 5, 11, 15, and 16, with the exception of canceled claim 2, those claims have been amended to overcome to comply with the cited objections or to otherwise obviate the cited objections.

In response to the rejection of claims 7, 14, and 20 under 35 U.S.C. § 112, first paragraph, applicants respectfully traverse that ground for rejection. The phrase “duplex chain cognitive body” is sufficiently explained in the specification to enable one of ordinary

skill in the art to understand its meaning. See, e.g., page 33, lines 7 to 26. Therefore, this ground for rejection should be withdrawn.

In response to the rejection of claims 2, 6, 7, 10-15, 19 and 20 under 35 U.S.C. § 112, second paragraph, except for canceled claim 2, those claims have been amended to address the rejection on that ground. The changes are believed to overcome the rejection, but should the examiner have any remaining questions or issues, the examiner is invited to contact the undersigned to work out mutually agreeable language.

In response to the provisional obviousness-type double patenting rejection, this rejection has been overcome by the filing of a terminal disclaimer herewith.

In response to the rejection of claims 1-7 and 9 under 35 U.S.C. § 102 as being anticipated by Hashimoto et al. (JP10-146183) (hereinafter “the ‘183 publication”), applicants respectfully traverse the rejection. Claim 1 recites “a plurality of nucleic acid chain fixed electrodes to each of which a probe nucleic acid chain is fixed; and a counter electrode which is arranged opposite to the nucleic acid chain fixed electrodes.” The office action has asserted that the ‘183 publication teaches a corresponding plurality of nucleic acid chain fixed electrodes by citing elements 105 and 106 in Drawings 10(a) and 10(b). Moreover, the office action has asserted that the ‘183 publication teaches a corresponding counter electrode by citing element 104 in Drawings 10(a) and 10(b). However, this position misinterprets the disclosure of the ‘183 publication.

Paragraph [0058] of the ‘183 publication (as well as the description of notations) discloses that elements 104, 105, and 106 are conductors, not electrodes. Elements 107, 108, 109, however, all correspond to nucleic acid probes, which are mounted on conductors 104, 105 and 106. (The conductors 104, 105 and 106 are then mounted on substrates 101, 102 and 103, respectively.) In addition, in the same paragraph, the ‘183 publication states “Moreover, when a hybrid is formed so that the nucleic acid 110 is used as ... straddle between nucleic

acids 95 and 96, 107 and 108, or 107 and 109”; therefore, it is apparent the conductor is not the counter electrode. Thus, the ‘183 publication does not disclose nucleic acid chain fixed electrodes and a counter electrode as claimed in claim 1.

In response to the rejection of claims 1-3, 5-7, 16 and 19 under 35 U.S.C. § 102 as being anticipated by Miyahara et al. (EP 1 120 646) (hereinafter “the ‘646 publication”), applicants respectfully traverse the rejection. As discussed above, claim 1 recites “a counter electrode which is arranged opposite to the nucleic acid chain fixed electrodes.” Such a positively recited element is not taught by the ‘646 publication. As shown in Figure 4 of the ‘646 publication, and as described in paragraph [0026] thereof, the counter (common) electrode 16 is arranged to one side such that the counter electrode is not arranged opposite to the nucleic acid chain fixed electrodes. Therefore, claim 1 (and its dependent claims) is not anticipated by the ‘646 publication.

Regarding independent claim 16, claim 16 now recites “a plurality of switching elements connected with the plurality of nucleic acid chain fixed electrodes, the plurality of scanning lines, and the plurality of signal lines, configured to turn on and turn off a connection between the plurality of nucleic acid chain fixed electrodes and the plurality of signal lines according to the select signals from the plurality of scanning lines, and provided for the nucleic acid chain fixed electrodes, respectively.” Such a positively recited set of elements is not taught by the ‘646 publication and can, therefore, result in cross-talk in current flows within the structures of the ‘646 publication. Such cross-talk can degrade detection accuracy. Accordingly, the subject matter of claim 16 (and its dependent claims) is patentable over the ‘646 patent, and this rejection should be withdrawn.

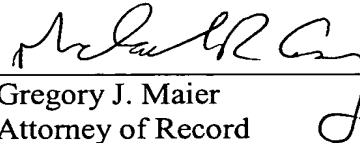
Consequently, in view of the present amendment and in light of the above discussions, the outstanding grounds for objection and rejection are believed to have been

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overcome, and the claims are in condition for allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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